

**ABSTRACT**

A monolithic photodetector including a photodiode, a precharge MOS transistor, a control MOS transistor, and a read MOS transistor, the photodiode and the precharge transistor being formed in a same substrate of a first conductivity type, the photodiode  
5 including a first region of the second conductivity type formed under a second region of the first conductivity type more heavily doped than the substrate, and under a third region of the second conductivity type, more heavily doped than the first region, the second and third regions being separate, the first region forming the source region of the second conductivity type of the precharge MOS transistor, the second and third regions being  
10 connected, respectively, to a fixed voltage and to the gate of the control transistor.